Columbia River Initiative
Draft Management Scenarios

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Background

The Department of Ecology has developed the following set of alternative draft management scenarios as the next step in the Columbia River Initiative (CRI). The draft management scenarios reflect a range of potential water resources management strategies for the Columbia River mainstem. Each scenario describes a specific hypothetical management approach to water use and mitigation, if required, and generally describes the approach that would be used by Ecology decision-makers as they review water rights applications.

The scope of work for the National Research Council's committee includes a requirement to review and comment upon a set of management scenarios to be provided by the Department of Ecology. In the form described herein, the alternative scenarios represent early thinking about a range of possible outcomes relating risk to salmon and water use and establishing sufficient difference for scientific consideration. They should not be interpreted as a set of final proposals, nor as a package intended to constrain the potential outcomes of the scientific review. The management program that is eventually proposed by the Department of Ecology as a formal rule will have been shaped by feedback from the scientific review and would likely include elements that are yet to be suggested by interested parties.

As information becomes available from the science review, a management program will be developed for further refinement and will be drafted as a proposed rule by the Department of Ecology. Both formal and informal public review and comment will be included as elements of the rule-making process. Final adoption of the rule will take place following the publication of the National Research Council's report.

The management program developed as the basis for rule-making will become the most important product to result for the Columbia River Initiative. The guidance this program will provide to the Department of Ecology would in large part define the permitting program in regards to new water allocation and mitigation decisions and would be the basis upon which the State of Washington implements its dual responsibilities to manage water resources and protect the environment.

Five Management Scenarios

The following five draft scenarios are submitted to the National Research Council for review. With the exception of the No Action Scenario, each scenario describes an amount of water to be allocated for out-of-stream use, and any mitigation that might be undertaken in conjunction with the increased use of water. The scenarios are further distinguished based upon a set of premises regarding the risk to salmonid populations that would arise from additional water withdrawals from the mainstem of the Columbia River.

Scenario 1: Water Allocation Linked to Current Salmon Efforts

The key premise of Scenario 1 is that there is a low risk to salmon survival resulting from existing and new allocations of water and that the state's current salmon recovery efforts are adequate, i.e. the benefits from current efforts exceed the risks associated with new water allocations. For Scenario 1, it is assumed that the state and region will continue to make current or increased investments in existing salmon recovery-related environmental activities, but that these investments are relatively unrelated to new Washington water resources management program that would allocate or recognize up to 2 million acre feet of new water over a 20-year period, 1 million of which would be for out-of-stream uses in Washington State.

As embodied in the Northwest Power Planning Council's Fish and Wildlife Plan and Washington's Statewide Strategy to Recover Salmon, existing salmon-related environmental activities include direct investments in salmon recovery projects made by the Salmon Recovery Funding Board and local salmon recovery groups, state and local investments in watershed planning, ongoing efforts to establish instream flows in tributaries to the Columbia River, the state program to purchase water rights to support instream flows, state and federal funding of irrigation efficiency. (Detailed descriptions of these programs will be provided to the National Research Council committee.)

In Scenario 1, it is assumed that water resources could be made available for use between the Canadian Border and the Bonneville Dam. New permits would be issued by the State of Washington during a 20-year window, not to exceed 1 million acre feet in total. Within the total amount of water allocated by Scenario 1 approximately 220,000 acre-feet would be made available to meet demand within the Columbia Basin Project. In addition to the 1 million acre feet to be allocated to Washington water users by Scenario 1, 427,000 acre-feet, representing flow and temperature management actions taken in the Snake River, would be legally recognized through the Washington State reaches of the Snake and Columbia Rivers, and 600,000 acre feet would be recognized as necessary to meet the water resources needs of the state of Oregon. Commitments of water resources in this scenario total 2 million acre feet, of which 1.6 million could be developed for out-of-stream use over the next 20 years.

Permits that are currently subject to interruption when stream flows reach a predetermined level could be, at the owner's option, converted to uninterruptible status. These water rights could be converted to uninterruptible status by demonstrating that current water use conforms to state-of-the-art water use efficiency practices. Likewise, all new water rights issued by the state would require state-of-the-art efficiency in proposed uses and would also be metered.

Periodic assessment of the state's water resources management program would be integral and ongoing. Scientific information would be used to adapt the program as necessary to accommodate changes in knowledge over time. Formal re-evaluations of the program would take place at year 10 and year 20.

In addition, the state would seek partners to create a functioning water market or "water bank" for the mainstem of the Columbia River to facilitate a more efficient allocation of existing water resources in the Basin.

Scenario 2: Incremental Mitigation Linked to New and Modified Permits

Scenario 2 presumes that a new level of contribution to salmon health and recovery would be required to secure sufficient additional benefits for fish and to offset the risk created by additional water withdrawals from the river. Revenue to support the additional level of effort would be generated by a $10 per acre foot per year usage charge on new permits and on existing rights that are converted from an interruptible to an uninterruptible status. The elements of the scenario would be in addition to the ongoing state and regional actions, assessment, and water bank described in Scenario 1.

New permits would be issued during a 20 year window, not to exceed 700,000 acre feet in total. The state would issue an additional 300,000 acre feet (a total of 1 million acre feet) from the mainstem once existing users demonstrate that conservation investments are in place for a majority of water users on the mainstem. Applicants for new permits or conversion of existing permits to uninterruptible status would also be required to demonstrate compliance with state-of-the-art efficiency standards.

Revenue generated would provide funds to acquire mitigation water in low water years and to make habitat improvements in the mainstem and tributaries. In addition to existing salmon-related environmental activities, the development of storage projects could be explored using these resources. Fisheries managers would be asked to prioritize the use of these resources, and would consider implementing a low water year strategy.

Scenario 3: Enhanced Level of Mitigation

This alternative would incorporate the current salmon recovery-related environmental activities and other proposed actions described in Scenarios 1 and 2. However, this scenario is premised on the notion that a more robust contribution to salmon health and survival would be necessary to secure additional benefits to fish and to offset the risks caused by additional water withdrawals from the river. Revenue to support the additional level of effort would be generated by a $20 per acre foot per year usage charge on new permits and on existing rights that are converted from an interruptible to an uninterruptible status. Revenue generated by the usage charge would be used to benefit salmon recovery projects. Consistent with Scenario 2, this alternative would create a 20-year window to issue new water use permits, in an amount not to exceed 1 million acre feet in total.

To supplement actions supported by the usage charge on new permits and on existing rights that are converted to an uninterruptible status, the state would provide financial support to install new conservation measures. The state would also actively explore other means to provide additional water for offstream and instream uses, e.g. storage

developments. Fisheries managers would be asked to prioritize the use of these resources, and would consider implementing a low water year strategy.

Scenario 4: In-Place, In-Kind, and In-Time Mitigation

Scenario 4 assumes that the risk to salmonid survival that would result from additional water withdrawals from the Columbia River is so significant that it must be directly offset in proportion to consumption. No new water rights would be permitted without being offset by direct mitigation in the mainstem of the Columbia River.

Under Scenario 4, all new water rights could be required to offset water use through water right changes and transfers, conservation, and/or utilizing newly developed storage capacity. The state would pursue conservation savings from existing rights and would also actively pursue storage projects that could provide the capacity to support new water resources for out of stream appropriation.

Existing water rights could be converted to an uninterruptible status by conforming to state-of-the-art water use efficiency standards and by paying a $30 per acre foot per year usage charge. Revenue generated would provide funds to acquire mitigation water in low water years and to make habitat improvements in the mainstem and tributaries.

Scenario 5: No Action Scenario

Scenario 5 assumes that the existing rule governing the water resources of the Columbia River, the Department of Ecology would require consultation with fish managers (Washington Department of Fish and Wildlife, Tribes, National Oceanic and Atmospheric Administration – Fisheries Division) prior to allocating new water rights. Under this scenario whether or not mitigation is required and the type and quantity of that mitigation is a decision that is made on each permit on a case by case base as a result of the consultation.
